

Compression Connectors, H-Tap, Aluminum



1. Scope

This standard covers the requirements for range-taking, aluminum, compression H-tap connectors.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Main (AWG)	Tap (AWG)
014320	#2-#6 ACSR, #2-#6 Str	#8-#14 Str
014321	#2-#6 ACSR, #1-#6 Str	#2-#6 ACSR, #1-#6 Str
014322	1/0-#2 ACSR, 2/0-#2 Str	#2-#6 ACSR, #1-#6 Str
014323	2/0-1/0 ACSR, 4/0-3/0 Str	#2-#6 ACSR, #1-#6 Str
014324	2/0-#1 ACSR, 4/0-2/0 Str	2/0-#1 ACSR, 3/0-1/0 Str
014325	4/0-3/0 ACSR, 4/0 Str	#2-#6 ACSR, 1/0-#6 Str
014326	4/0-3/0 ACSR, 4/0-3/0 Str	4/0-3/0 ACSR, 4/0-3/0 Str
014384	4/0-3/0 ACSR, 4/0-3/0 Str	2/0-#1 ACSR, 2/0-#1 Str

2. Application

Compression connectors are for service drop, secondary or primary tap and grounding installations on all combinations of aluminum-to-aluminum, or aluminum-to-copper conductors. Connections are reversible.

Compression connectors are not appropriate for making up copper-to-copper connections.

For more application information, see Section 1 or Table 4b.

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3. Industry Standards

Compression connectors shall meet the applicable requirements of the latest revision of the following industry standard:

ANSI C119.4; American National Standard for Electric Connectors-Connectors for Use Between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operation at or Below 93 deg. C and Copper-to-Copper Conductors Designed for Normal Operation at or Below 100 deg. C

4. Requirements

Compression connectors shall meet the requirements shown in tables 4a and 4b.

Table 4a. General Requirements

Attribute	Requirement
Material	1350 aluminum alloy
Current class per ANSI 119.4	B (medium duty)
Tension class per ANSI 119.4	3 (minimum tension)

Compression connectors shall be prefilled with oxide inhibitor held captive in the rib/connection area.

Compression connectors shall be of a fold-in tab design.

Table 4b. Detailed Requirements

Stock No.	Main (AWG)	Tap (AWG)	Die
014320	#2-#6 ACSR ^a , #2-#6 Str ^b	#8-#14 Str	5/8, BG
014321	#2-#6 ACSR, #1-#6 Str	#2-#6 ACSR, #1-#6 Str	O
014322	1/0-#2 ACSR, 2/0-#2 Str	#2-#6 ACSR, #1-#6 Str	O
014323	2/0-1/0 ACSR, 4/0-3/0 Str	#2-#6 ACSR, #1-#6 Str	D, D3
014324	2/0-#1 ACSR, 4/0-2/0 Str	2/0-#1 ACSR, 3/0-1/0 Str	D, D3
014325	4/0-3/0 ACSR, 4/0 Str	#2-#6 ACSR, 1/0-#6 Str	D, D3
014326	4/0-3/0 ACSR, 4/0-3/0 Str	4/0-3/0 ACSR, 4/0-3/0 Str	D, D3
014384	4/0-3/0 ACSR, 4/0-3/0 Str	2/0-#1 ACSR, 2/0-#1 Str	D, D3

^a Aluminum conductor, steel-reinforced as defined by ASTM 232

^b Stranded, Class B compressed as defined by ASTM B231

5. Testing

Compression connectors shall be tested according to the requirements of ANSI C119.4.

Test results shall be provided upon request.

6. Design Changes

Manufacturer shall inform SCL in writing of all design changes that could affect the understood or published capabilities of the product.

7. Marking

Each compression connector shall be permanently and legibly marked in raised or stamped letters. Marking shall include, but not be limited to, the following information:

- Manufacturer identification
- Manufacturer catalog number
- Main and tap wire sizes
- Required die

8. Packaging

Compression connectors shall be package 25 per box.

Each standard package shall include a set of installation instructions.

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Manufacturer catalog number
- Main and tap wire sizes
- Required die
- Seattle City Light stock number

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light purchase order number

9. Issuance

Stock Unit: EA

10. Approved Manufacturers

Stock No.	Blackburn (Div. of Thomas & Betts)	Homac (Div. of Thomas & Betts)	Burndy (Div. of Hubbell Power Systems)
014320	–	UB 214	–
014321	WR159	OB 44	YHO-100
014322	WR189	OB 101	YHO-150
014323	WR289	DB 202	YHD-200
014324	WR279	DB 2020	YHD-300
014325	WR379	DB 404	YHD-250
014326	WR419	DB 4040	YHD-400
014384	WR399	DB 4020	YHD-350

11. References

ASTM B231; Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors

ASTM B232; Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)

12. Sources

Shipek, John; SCL Standards Supervisor, originator, and subject matter expert for 6774.15 (john.shipek@seattle.gov)